

REMARKS/ARGUMENTS

Claims 1-38 are currently pending in the application. No amendments are currently being made. Applicants respectfully request reconsideration of the rejections set forth in the Office Action dated November 2, 2004 in light of the following remarks.

The present invention provides improved systems and methods for packetizing and streaming multimedia data. The overall procedure may be divided into two phases. First, the system parses MPEG data and reformats it for rapid conversion into network packets. This reformatting phase is done prior to streaming. After reformatting, the modified MPEG bitstream includes annotations that help a network server packetize the MPEG bitstream into network packets. In the second phase, a network server encapsulates the reformatted MPEG data within network packets and streams the data onto the network. As a result of reformatting the MPEG data prior to transmission, the delivery demands of packetizing MPEG data are greatly reduced.

Rejections Under 35 U.S.C. §102(e)

The Office Action dated November 2, 2004 rejected claims 1-38 under 35 U.S.C. §102(e) as being anticipated by US Patent No. 6,154,780 to Zhu (referred to herein as 'Zhu'). Applicants respectfully traverse.

Zhu encapsulates video with macroblock granularity. If a macroblock fragmentation occurs between RTP packets, synchronization information for the next macroblock is added to the following packet.

The present invention provides a two-phase process. The first phase prepares a compressed audio, video, or multimedia bitstream to facilitate real time streaming. The second phase encapsulates and streams the bitstream in real-time - using network packet information deposited into the bitstream in the first phase.

Zhu is notably and entirely silent on the entire first phase, which is apparent in all the independent claims. More specifically, Zhu solely discusses encapsulation in transmission in real time (see col. 1, lines 5-32). He directs his invention towards dynamic performance at the time of real-time encapsulation and transmission.

Silence by Zhu towards the entire first phase repeatedly betrays the anticipation rejection asserted in the Office Action. For example, the Office Action (on page 3) asserts that Zhu discloses a method for preparing a compressed audio, video or multimedia bitstream and uses figures 8A-8B to support anticipation. However, Zhu states that FIG. 8A "is a flow diagram illustrating a method of encapsulating a H.263 video bitstream" (see col. 8, lines 44-45, and the first bubble of the flow diagram). FIG. 8B expands step 820 of FIG. 8A. Nowhere does Zhu teach or suggest preparing (parsing and annotating) a compressed audio, video or multimedia bitstream, as recited in independent claim 1. Thus, Zhu does not teach claim 1.

The Office Action uses col. 4, lines 18-20 to teach annotating a bitstream header. Independent claim 1 annotates the compressed audio, video, or multimedia bitstream headers. Zhu writes into RTP packet headers. The two are not interchangeable. Zhu writes into the wrong bitstream, and into the wrong headers. If the Office Action assertion is read continuously, then Zhu writes network packet boundary information (as in the claim) into a network packet header (the only header Zhu writes into) for a network packet whose size is known (Zhu's RTP packet sizes are known). Why would Zhu write boundary information into a packet header where the size already known? Plausibly, Zhu does not teach this element of independent claim 1.

The Office Action applies col. 4, lines 18-20 to teach annotating a bitstream header. However, these lines only admit that the invention of Zhu "may be practiced without some specific details" described therein. An admission by a reference that described details can be omitted does not teach ANY claim limitation, let alone this particular limitation. Seeing as Zhu does not teach annotating a bitstream header, this portion of Zhu lends no support to an anticipation rejection. Similarly, Zhu does not teach this element of the independent claims. **To anticipate a claim, the reference must teach every element of the claim (see MPEP 2131).**

Next, the Office Action uses col. 4, lines 25-30 to teach network packet information specifying the network packet boundaries. However, this section of Zhu specifies RTP packet header sizes. The two are not the same, and RTP header sizes do not teach packet boundaries. This element of the claims is also missing from Zhu.

In addition, the Office Action uses col. 8, lines 20-30 to teach that a streaming apparatus can use the network packet information from a compressed audio, video, or multimedia bitstream header. However, this portion of Zhu describes dynamic synchronization of RTP packet boundaries based on a slice granularity and freedom from predefined spatial locations in a video bitstream. This section does not remotely mention network packet information.

Given so many omissions by Zhu in teaching the recited claim limitations, it is clear that Zhu does not teach or suggest independent claim 1. In fact, the background of the Applicant's Specification on pages 3-4 summarizes encapsulation as taught by Zhu.

Independent claims 19, 24, 29, 37 and 38 include limitations that are similar to independent claim 1 and are patentable for at least the reasons described above with respect to independent claim 1.

The other independent claims recite additional features not taught or suggested by Zhu. For example, independent claim 24 recites "storing the annotated bitstream". Zhu only teaches writing into RTP packet headers. He then transmits the RTP packets in real-time. He does not store an annotated RTP packet bitstream. The Office Action redundantly uses col. 8, lines 20-30 to teach this limitation, which describes synchronization freedom from predefined spatial locations in a video bitstream. It does not teach data storage.

Therefore, Applicant respectfully submits that Zhu does not teach or suggest independent claims 1, 19, 24, 29, 37 and 38, and that the independent claims are allowable.

Claims 2-18 and 20-23, 25-28 and 30-36 each depend either directly or indirectly from independent claims 1, 19, 24 and 29 and are patentable over the art of record for at least the reasons set forth above with respect to the independent claims. For example, dependent claim 4 recites that "separating the bitstream into an elementary audio stream and a elementary video stream". Zhu does not mention such processing and the Office Action only points to an index that counts macroblocks. In addition, dependent claim 6 recites "wherein the index is inserted into the elementary video stream". Zhu inserts his macroblock index into RTP headers.

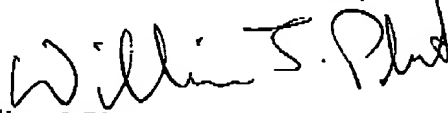
Withdrawal of the rejection of under 35 U.S.C. § 102(e) is therefore respectfully requested.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Applicants hereby petition for an extension of time which may be required to maintain pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Response is to be charged to Deposit Account No. 50-0388 (Order No. CISC155).

Respectfully submitted,

BEYER WEAVER & THOMAS, LLP



William J. Plut

Limited Recognition under 37 C.F.R. §10.9(b)

P.O. Box 70250
Oakland, CA 94612-0250
Telephone: (650) 961-8300


**BEFORE THE OFFICE OF ENROLLMENT AND DISCIPLINE
UNITED STATES PATENT AND TRADEMARK OFFICE**

LIMITED RECOGNITION UNDER 37 CFR § 10.9(b)

William Plut is hereby given limited recognition under 37 CFR § 10.9(b) as an employee of the Beyer Weaver & Thomas, LLP law firm to prepare and prosecute patent applications wherein the patent applicant is the client of the Beyer Weaver & Thomas, LLP law firm, and the attorney or agent of record in the applications is a registered practitioner who is a member of the Beyer Weaver & Thomas, LLP law firm. This limited recognition shall expire on the date appearing below, or when whichever of the following events first occurs prior to the date appearing below: (i) William Plut ceases to lawfully reside in the United States, (ii) William Plut's employment with the Beyer Weaver & Thomas, LLP law firm ceases or is terminated, or (iii) William Plut ceases to remain or reside in the United States on an TN visa.

This document constitutes proof of such recognition. The original of this document is on file in the Office of Enrollment and Discipline of the United States Patent and Trademark Office.

Expires: April 21, 2005


Harry I. Moatz
Director of Enrollment and Discipline